

ABSTRACT OF SANITARY REPORTS.

VOL. V.

WASHINGTON, D. C., AUGUST 29, 1890.

No. 35.

[Published at the Marine-Hospital Bureau in accordance with act of Congress of April 29, 1878.]

UNITED STATES.

SPECIAL REPORTS.

Gulf Quarantine Station—Yellow fever.

The following has been received, dated August 17, 1890 :

SIR : I have the honor to report that the master of the Spanish bark *Castilla*, whose mate died in hospital here of yellow fever on the 15th instant, developed the same disease on the night of the 15th, I discovering it the next morning. It promises to be a mild case.

All the others aboard are Manillas, except two Havanese, and I presume are acclimated.

The vessel was fumigated on the 14th, and of course will be disinfected anew to prevent recoutamination from this case.

Very respectfully,

H. R. CARTER,
Passed Assistant Surgeon.

Report of yellow fever cases occurring on vessels bound for United States ports from Havana, Cuba.

The United States sanitary inspector at Havana sends the following report :

The British bark *Francisco Gargiulo*, bound for Ship Island, had four cases of yellow fever during and after leaving wharf while in this port. All convalescent when vessel left here.

There were several cases of fever of a suspicious character among the crew of the British frigate *Eastern Monarch*, bound for New York. All well at time of sailing. Crew were in the habit of visiting Havana at night.

After the departure of the Spanish bark *Maria de las Nieves*, bound for New York, it was ascertained that during her present trip here two sick persons were sent from the vessel to Garcini hospital ; one, a passenger, dying in the hospital of yellow fever ; the other, a mate of the vessel, having had a fever of a suspicious character.

Reports of States, and yearly and monthly reports of cities.

IOWA—*Council Bluffs*.—Month of July, 1890. Population, 35,000. Total deaths, 40, including diphtheria 4 and measles 1.

MICHIGAN.—Week ended August 16, 1890. Reports to the State board of health, Lansing, from 68 observers indicate that typhoid fever, whooping-cough, and inflammation of bowels increased, and that puerperal fever, membranous croup, cerebro-spinal meningitis, erysipelas, diphtheria, scarlet fever, and inflammation of kidney decreased in area of prevalence.

Diphtheria was reported present during the week at 24 places, scarlet fever at 26 places, enteric fever at 30 places, and measles at 9 places.

NEW YORK.—For the year 1889, the tenth annual report of the State board of health gives a total of 104,119 deaths in a population of 5,720,000.

Measles caused 1,004 deaths, showing an increase over the preceding year of 154.

Whooping-cough caused 1,332 deaths, which is an increase of 430 over the preceding year.

Scarlet fever caused 2,312 deaths, showing a decrease of 66 compared with the report of the year preceding.

Phthisis pulmonalis caused 12,280 and diphtheria and croup 5,930 deaths.

The death rate for the entire State for the year has been given at 19.10 a thousand of the population.

TENNESSEE.—Month of July, 1890. Reports to the State board of health indicate that the principal prevailing diseases during the month, named in the order of their greater prevalence, were malarial fevers, dysentery, diarrhoea, cholera-infantum, cholera-morbus, consumption, rheumatism, and pneumonia. Enteric fever was reported in 24 counties, whooping-cough in 12 counties, measles in 8 counties, scarlet fever in 3 counties, diphtheria in 2 counties, and chicken-pox in 1 county.

Reports from 7 cities and towns, having an aggregate population of 227,551, show a total of 457 deaths, including phthisis pulmonalis, 42; diphtheria and croup, 4; enteric fever, 20; measles, 3; and whooping-cough, 10.

Publications received.

Tenth annual report of the State board of health of New York, 1889.

A summary of the four annual reports of the Central Sanitary Bureau, attached to the Home Department of the Imperial Japanese Government, 1884 to 1887.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—										
				Cholera.	Yellow fever.	Small-pox.	Varioloid.	Variella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
New York, N. Y.	Aug. 23.	1,638,498	751							12	4	14	12	16
Philadelphia, Pa.	Aug. 16.	1,064,277	337							14	2	2	2	16
Brooklyn, N. Y.	Aug. 16.	871,852	386							1	2	12	1	10
Brooklyn, N. Y.	Aug. 23.	871,852	369							4	2	6	4	7
Baltimore, Md.	Aug. 23.	500,343	141							5		8		4
St. Louis, Mo.	Aug. 16.	450,000	169							4	1	4		
St. Louis, Mo.	Aug. 23.	450,000								4	1	2		
Boston, Mass.	Aug. 23.	437,245	200							6		5		
Washington, D. C.	Aug. 23.	250,000	83							6		8		
Cincinnati, Ohio.	Aug. 22.	325,000	41							2		2		1
Detroit, Mich.	Aug. 16.	230,000	86								1	5		
Milwaukee, Wis.	Aug. 22.	220,000	66							2		3	1	
Minneapolis, Minn.	Aug. 16.	200,000	65							5		3		
Minneapolis, Minn.	Aug. 23.	200,000	53							3	2	2		
Rochester, N. Y.	Aug. 16.	135,000	57											1
Kansas City, Mo.	Aug. 23.	132,000	28							1				
Providence, R. I.	Aug. 23.	130,000	70									3		1
Indianapolis, Ind.	Aug. 22.	129,346	28							4		2		
Richmond, Va.	Aug. 16.	100,000	40							4		2		
Richmond, Va.	Aug. 23.	100,000	35							2				2
Toledo, Ohio.	Aug. 23.	81,650	20											
Nashville, Tenn.	Aug. 23.	75,695	33							3				
Fall River, Mass.	Aug. 23.	74,918	33											
Charleston, S. C.	Aug. 16.	60,145	37							2				
Charleston, S. C.	Aug. 23.	60,145	31							1				
Manchester, N. H.	Aug. 23.	44,000												
Portland, Me.	Aug. 23.	42,000	15											
Binghamton, N. Y.	Aug. 23.	35,000	13											
Yonkers, N. Y.	Aug. 15.	32,000	13							1				
Yonkers, N. Y.	Aug. 23.	32,000	10								1			
Auburn, N. Y.	Aug. 23.	26,000	8								1			
Newton, Mass.	Aug. 23.	22,011	5											
Rock Island, Ill.	Aug. 17.	16,000	2											
Pensacola, Fla.	Aug. 16.	15,000	4							1				

Table of temperature and rain-fall, week ended August 22, 1890.

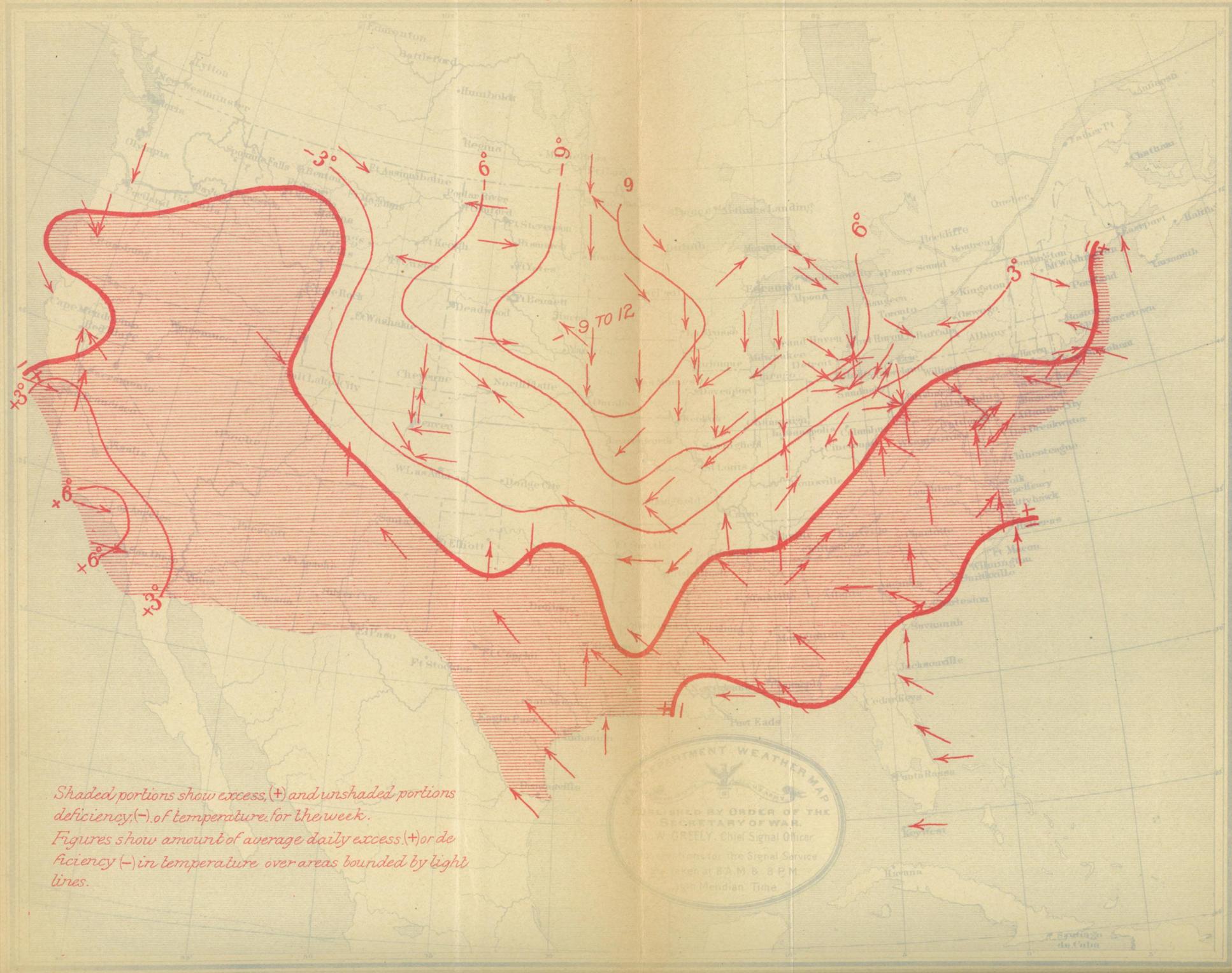
[Received from War Department, Signal Office.]

Locality.	Mean temperature in degrees, Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
New England States:						
Eastport, Me.	60	4		.74	1.62	
Portland, Me.	65		3	.75	.81	
Boston, Mass.	69		1	1.02		.09
Block Island, R. I.	69		3	.70		.46
Middle Atlantic States:						
Albany, N. Y.	70		9	.78	2.84	
New York, N. Y.	73	3		1.10	.71	
Philadelphia, Pa.	74	6		1.10	1.17	
Atlantic City, N. J.	72	2		1.09		.31
Baltimore, Md.	76	3		1.01	2.31	
Washington, D. C.	75	9		1.05		.73
Lynchburg, Va.	76	7		.90	.96	
Norfolk, Va.	77	2		1.34	1.28	
South Atlantic States:						
Charlotte, N. C.	77	4		1.09		1.09
Wilmington, N. C.	79		1	1.74	.82	
Charleston, S. C.	81	1		1.77	.11	
Augusta, Ga.	80	6		1.03		1.03
Savannah, Ga.	80		11	1.82		1.44
Jacksonville, Fla.	81		3	1.59		.91
Key West, Fla.	84		5	1.14	.06	

Table of temperature and rain-fall, week ended August 22, 1890—Continued.

Locality.	Mean temperature in degrees, Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Gulf States:						
Atlanta, Ga.....	76	4		.91		.36
Pensacola, Fla.....	80	2		2.37		1.08
Mobile, Ala.....	80	3		1.54		.62
Montgomery, Ala.....	80	6		.81	1.02	
Vicksburg, Miss.....	81	8		.72		.60
New Orleans, La.....	82		2	1.20		.77
Shreveport, La.....	81		5	.46		.34
Fort Smith, Ark.....	79		8	.49	8.59	
Little Rock, Ark.....	79		3	.86	.06	
Palestine, Tex.....	81	10		.42		.02
Galveston, Tex.....	83	7		1.12		.23
San Antonio, Tex.....	82	13		.78		.36
Corpus Christi, Tex.....	83			.84		
Brownsville, Tex.....	82			1.02		
Rio Grande, Tex.....	83			.84		
Ohio Valley and Tennessee:						
Memphis, Tenn.....	80			.73		.13
Nashville, Tenn.....	79		6	.77	.42	
Chattanooga, Tenn.....	77	2		.95	.15	
Knoxville, Tenn.....	75	15		.98	.45	
Louisville, Ky.....	77		12	.81	.96	
Indianapolis, Ind.....	75		28	.79	1.49	
Cincinnati, Ohio.....	76		11	.91	1.60	
Columbus, Ohio.....	73		15	.84	.84	
Pittsburgh, Pa.....	72			.74	.92	
Lake Region:						
Oswego, N. Y.....	69		33	.56	.54	
Rochester, N. Y.....	69		24	.74	.03	
Buffalo, N. Y.....	69		23	.75	.67	
Erie, Pa.....	70		30	.75	.55	
Cleveland, Ohio.....	70		24	.74	.69	
Sandusky, Ohio.....	72		30	.91	.31	
Toledo, Ohio.....	72		40	.67	1.53	
Detroit, Mich.....	71		44	.66	2.64	
Port Huron, Mich.....	68		43	.63	1.09	
Alpena, Mich.....	65		51	.84	.60	
Marquette, Mich.....	64		59	.70		
Green Bay, Wis.....	67		54	.50	.26	
Grand Haven, Mich.....	68			.73		
Milwaukee, Wis.....	69		51	.70	.05	
Chicago, Ill.....	73		57	.73	1.08	
Duluth, Minn.....	65		46	.77	.19	
Upper Mississippi Valley:						
St. Paul, Minn.....	69		73	.83		.09
La Crosse, Wis.....	72		69	.83		.24
Dubuque, Iowa.....	72		55	.82		.37
Davenport, Iowa.....	74			.93		
Des Moines, Iowa.....	73		63	.81	.95	
Keokuk, Iowa.....	76		62	.73	.26	
Springfield, Ill.....	75		46	.69	.51	
Cairo, Ill.....	78		18	.63	1.11	
St. Louis, Mo.....	78		31	.56		.32
Springfield, Mo.....	77		60	1.05	1.38	
Missouri Valley:						
Kansas City, Mo.....	77			.70		
Concordia, Kan.....	73		34	.56		.44
Omaha, Nebr.....	74		64	.79		.58
Valentine, Nebr.....	72		65	.89	.83	
Huron, Dak.....	70		80	.63		.39
Extreme Northwest:						
Moorhead, Minn.....	65		65	.84		.46
St. Vincent, Minn.....	63		63	.63		.63
Bismarck, Dak.....	67		45	.60		.60
Buford, Fort, Dak.....	65		39	.26		.26
Rocky Mountain Slope:						
Assinniboine, Fort, Mont.....	66		31	.28		.24
Helena, Mont.....	64	5		.21		.19
Custer, Fort, Mont.....	68		39	.26		
Rapid City, Dak.....	63			.33		
Salt Lake City, Utah.....	74			.19		.18
Cheyenne, Wyo.....	65		27	.35		.05
North Platte, Nebr.....	72		32	.56		.48
Denver, Colo.....	70		42	.35		.07

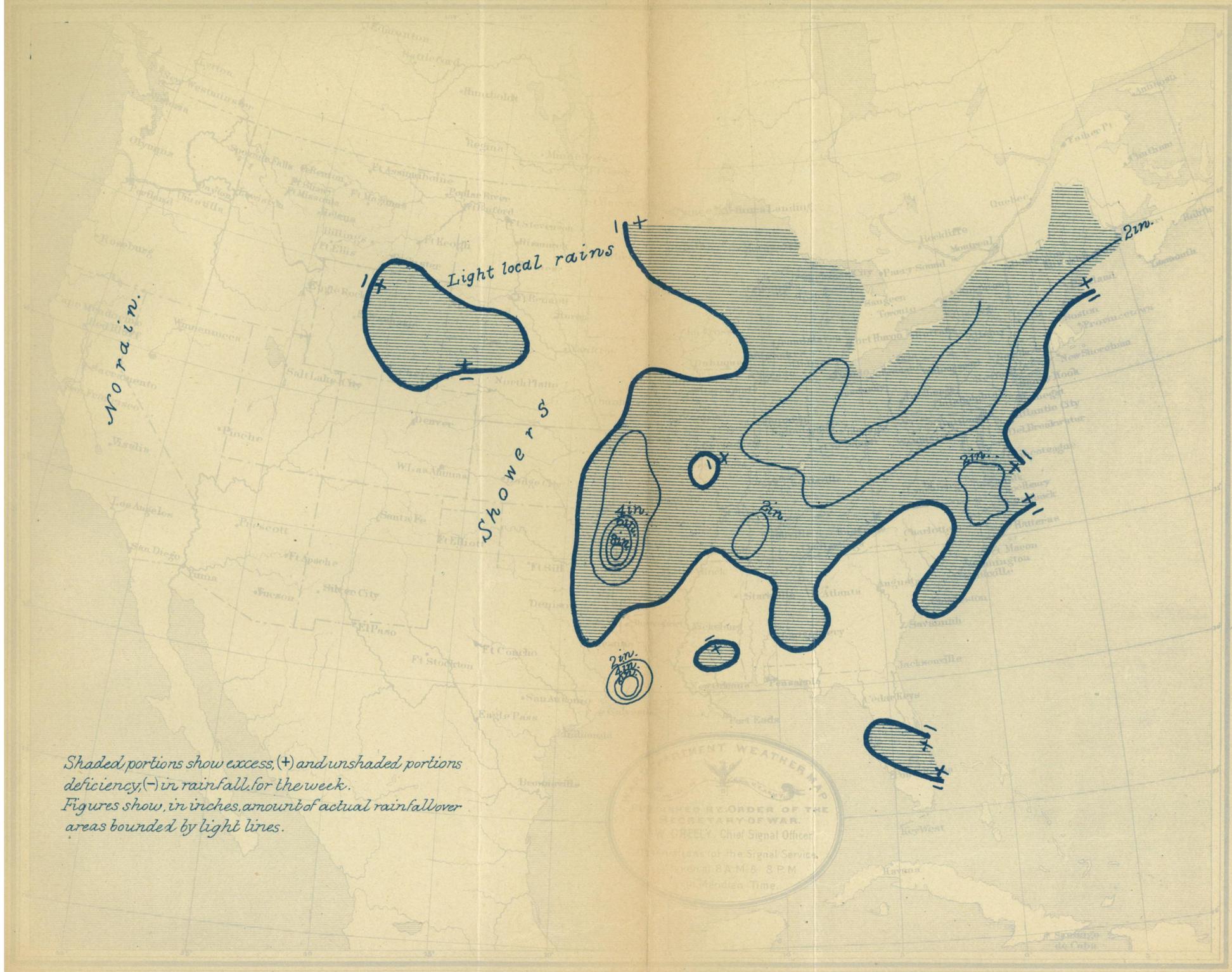
*Temperature and Prevailing Direction of Wind, week ending
August 22nd 1890.*



Shaded portions show excess (+) and unshaded portions deficiency (-) of temperature for the week.

Figures show amount of average daily excess (+) or deficiency (-) in temperature over areas bounded by light lines.

Rainfall, week ending August 22nd 1890.



Shaded portions show excess, (+) and unshaded portions deficiency, (-) in rainfall for the week. Figures show, in inches, amount of actual rainfall over areas bounded by light lines.

DEPARTMENT WEATHER MAP
 ORDERED BY THE SECRETARY OF WAR.
 W. GREELY, Chief Signal Officer
 Signal Service
 S. M. S. P. M.
 Standard Time

Table of temperature and rain-fall, week ended August 22, 1890—Continued.

Locality.	Mean temperature in degrees, Fahrenheit.			Rain-fall in inches and hundredths.		
	Normal.	Excess.	Deficiency.	Normal.	Excess.	Deficiency.
Rocky Mountain Slope—Cont'd.						
Dodge City, Kans.....	76		24	.72		.22
Elliott, Fort, Tex.....	76		16	.82		.36
Sill, Fort, Ind. T.....	80	7		.63		.25
Santa Fé, N. Mex.....	66	14		.67		.02
Pacific Coast:						
Olympia, Wash.....	62			.14		
Portland, Oreg.....	66		22	.15		.11
Roseburg, Oreg.....	66	26		.07		.07
Red Bluff, Cal.....	81		20			
Sacramento, Cal.....	71	6				
San Francisco, Cal.....	58	37				
Los Angeles, Cal.....	70	55				
San Diego, Cal.....	69	24		.05		.05
Yuma, Ariz.....	89	13		.11		.11

FOREIGN.

(Reports received through the Department of State and other channels.)

GREAT BRITAIN—*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended August 9 corresponded to an annual rate of 19.2 a thousand of the aggregate population, which is estimated at 9,715,559. The lowest rate was recorded in Blackburn, viz, 14.3, and the highest in Preston, viz, 28.3 a thousand. Diphtheria caused 2 deaths in Salford, 2 in Portsmouth, 2 in Newcastle-on-Tyne, and 4 in Manchester.

London.—One thousand five hundred and ninety-four deaths were registered during the week, including measles, 95; scarlet fever, 17; diphtheria, 22; whooping-cough, 37; enteric fever, 11; and diarrhœa and dysentery, 176. The deaths from all causes corresponded to an annual rate of 18.8 a thousand. Diseases of the respiratory organs caused 197 deaths. In greater London 1,991 deaths were registered, corresponding to an annual rate of 18.0 a thousand of the population. In the "outer ring" the deaths included measles 12 and whooping-cough 15.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended August 9, in the 16 principal town districts of Ireland, was 17.7 a thousand of the population. The lowest rate was recorded in Galway, viz, 3.4, and the highest in Londonderry, viz, 26.7 a thousand. In Dublin and suburbs 178 deaths were registered, including measles, 1; enteric fever, 2; and whooping-cough, 3.

Scotland.—The deaths registered in eight principal towns during the week ended August 9 corresponded to an annual rate of 17.2 a thousand of the population, which is estimated at 1,345,563. The lowest mortality was recorded in Perth, viz, 10.9, and the highest in Glasgow, viz, 19.3 a thousand. The aggregate number of deaths registered from all causes was 445, including small-pox, 1; measles, 10; scarlet fever, 2; diphtheria, 7; whooping-cough, 24; fever, 7; diarrhœa, 57; and croup and laryngitis, 2.

SPAIN—*Cholera.*—Through the Secretary of State, the following reports have been received from the chargé d'affaires at Madrid:

AUGUST 4, 1890.

La Correspondencia has a special telegram from Toledo, reporting 4 cases of cholera; its first appearance in that neighborhood. The epidemic in the province of Valencia is gradually increasing in its intensity; from 60 to 70 new cases each day, of which about 50 per cent. die.

Very hot weather is reported in all the provinces.

AUGUST 5, 1890.

Sixty new cases and 40 deaths were reported this evening in the province of Valencia, 90 cases and 40 deaths at Denia, 30 cases and 10 deaths at Toledo, and cases at Seville, Grenada, and numerous small villages, where the epidemic has appeared for the first time. Even Madrid is not free. I am afraid it is becoming a dangerous epidemic.

Small-pox.—The chargé d'affaires at Madrid writes as follows relative to small-pox at Cogollos:

AUGUST 4, 1890.

SIR: A special telegram to *El Liberal* states that 50 cases of small-pox exist at Cogollos, that the disease is spreading fast, and that the inhabitants absolutely refuse to be vaccinated. The Portuguese Government have issued a strict quarantine against Spain, and no trains are allowed across the line. Even the Sud-express from Paris is stopped at the frontier.

Barcelona.—Month of July, 1890. Population, 272,000. Total deaths, 611, including enteric fever, 16; scarlet fever, 3; measles, 35; and small-pox, 4.

NETHERLANDS.—Month of June, 1890. The deaths registered in the principal cities, having an aggregate population of 1,176,905, correspond to an annual rate of 21.1 a thousand. The deaths included typhus and enteric fever, 16; scarlet fever, 2; measles, 52; croup, 8; whooping-cough, 7; diphtheria, 21; and phthisis pulmonalis and throat diseases, 176.

SWITZERLAND—*Lucerne.*—Month of July, 1890. Population, 21,400. Total deaths, 27, including 1 from diphtheria.

GREECE—*Athens.*—Period from June 12 to July 12, 1890. Population, 107,251. Total deaths, 215, including enteric fever 14.

Piræus.—Period from June 12 to July 12, 1890. Population, 34,327. Total deaths, 108, including 6 from enteric fever. Since the appearance of small-pox at Piræus (from the 17th to the 29th of July) there have been 42 cases at the small-pox hospital and 13 deaths therefrom.

Cholera in Japan.

The United States consul-general at Kanagawa, Japan, transmits a number of reports concerning the cholera in Nagasaki, the last report being dated July 28. The following is a summary:

Asiatic cholera made its appearance in Nagasaki June 27, 1890. There seems to be no abatement of the epidemic, but at the same time there is not much increase. The authorities have declared Nagasaki as an infected port and adopted quarantine regulations to prevent the spread of the disease, which I understand are being strictly enforced. As appears from the *Official Gazette*, up to and including July 26 there have been in Nagasaki Ken 766 cases of cholera, of which 447 have proved fatal.

The following communication indicates the measures that are being taken to prevent the spread of the disease :

DEPARTMENT FOR FOREIGN AFFAIRS,
Tokio, the 8th day, the 7th month, the 23d year of Meiji (July 8, 1890).

His Excellency JOHN F. SWIFT,
Envoy Extraordinary, Etc.

SIR: I have the honor to inform your excellency that in view of the increasing spread of cholera which has appeared at the port of Nagasaki, and the adjacent districts, the Imperial Government have deemed it necessary, in order to prevent the spread of the disease to the other parts of the empire, to enforce at the ports of Akamagaseki in Yamaguchi Prefecture, Kobe in Hiogo Prefecture, Yokohama in Kanagawa Prefecture, and Hakodate in Kokkaido, the "court regulations for the inspection of vessels arriving from localities infected with cholera," which were promulgated by Decree No. 31 of the 15th year of Meiji, in respect to vessels arriving at those ports, either direct or through intermediate ports, after having left or touched the port of Nagasaki, and that the minister for home affairs has issued Notification No. 22 to that effect, the copy and translation of which I have the honor to inclose herewith.

Considering the urgent necessity of the measure for the welfare and protection of both Japanese subjects and foreign residents, I deem it my duty to request you to take at once the necessary steps to secure the observance of the said regulations by all the persons and vessels of your nationality.

I beg to add that vessels arriving at Kobe, Osaka, and Hiogo will be subject to medical inspection at Wadanomiseki, in the province of Settsu, Hiogo Prefecture, and those arriving at Yokohama and Tokio at Nagaura, in the province of Sagami, Kanagawa Prefecture, as stated in the inclosed copy and translation of Notification No. 23.

I avail myself, etc.,

VISCOUNT SUIZO AOKI,
Minister for Foreign Affairs.

Cholera in Japan, 1884 to 1887.

[Extracts and statistics taken from the annual report of the Central Sanitary Bureau, attached to the Home Department of the Imperial Japanese Government.]

Although no year since 1877 has been free from cholera, there has been considerable difference in the virulence of the disease. The year 1884 was characterized by the mildness of the form prevailing. The number of cases, too, were less than in the preceding year. This dreadful malady made its appearance at Nagasaki towards the end of July, 1885. It raged with great severity in different localities of Kyūshū for over a month and then made its way eastward.

Though suppressed for a time, it made its appearance again in 1886, when it assumed the form of a violent epidemic, spreading far and wide, reducing the country to a state of misery that had not been known since 1877. Such a degree of severity may be attributable to the development of the poisonous germs that lay dormant in the previous year.

Subsequent to the first outbreak of cholera this year, the local authorities had been most punctual in inspecting travelers by land and sea,

and had endeavored by every possible means to suppress the disease, but in spite of these efforts it spread over all parts of the empire. During the four years from 1884 to 1887, there were 171,879 cases of cholera and 118,809 deaths; 166,456 cases of enteric fever and 36,261 deaths; 11,041 cases of diphtheria and 5,600 deaths; 16,473 cases of typhus fever and 2,835 deaths; and 127,578 cases of small-pox and 32,382 deaths.

The above statistics show that the cholera cases far exceed those from any other infectious or contagious disease.

AFRICA—Cholera at Natal.—The United States consul at Cape Town, under date of August 26, 1890, telegraphs that cholera has appeared at Natal.

Egypt—Small-pox.—The consul-general at Cairo reports 554 cases of small-pox, and 166 deaths therefrom, in Egypt during the period from April 11 to July 11, 1890.

Algiers.—Month of July, 1890. Population, 95,000. Total deaths 217, including enteric fever 7 and other contagious or infectious diseases 35. Measles is reported as the prevailing disease.

MEXICO—Piedras Negras—Small-pox.—The United States consul transmits a report stating that small-pox has considerably diminished in Piedras Negras. On the 12th of August there were but fourteen cases, eight of which were convalescent.

Merida.—Six months ended June 30, 1890. Population, 47,000. Total deaths, 989, including phthisis pulmonalis, 274; yellow fever, 15; enteric fever, 12; and croup, 7.

Total deaths from yellow fever to August 8, 1890, 38.

CUBA—Havana—Yellow fever.—The United States sanitary inspector reports 19 deaths from yellow fever in Havana during the week ended August 14, 1890.

JAMAICA—Kingston.—Month of July, 1890. Total deaths, 96, including 1 from enteric fever.

BRAZIL—Para.—The following report has been received from the United States consul, dated August 1, 1890:

SIR: I have the honor to report that the sanitary condition of this city and the adjacent country still continues very good.

Estimated population, 80,000. Number of deaths during the month of July, 1890, 186, including 6 from yellow fever, 23 from beri-beri, 1 from typhoid fever, and 1 from leprosy.

The deaths from yellow fever were all Europeans, who had only been in Para for a very short time, and were imprudent in their diet and mode of living.

Cholera in Turkey in Asia, and in Spain.

[Translated for this Bureau from *La Rivista Internazionale d'Igiene*, Naples, July, 1890.]

Almost immediately after the announcement of the cessation of cholera in Mesopotamia, the *Lancet* received intelligence of an out-

break of this epidemic in the village of Herder in the vicinity of the city of Dgizreh. This city is situated in the province of Diarbekir, and was one of the last localities lying to the northwest to be attacked by the epidemic of 1889.

A military sanitary cordon has been established around the infected district, and if events follow their ordinary course it will soon be seen that the cholera has passed the area of the cordon. Russia is making great efforts to arrest the disease on her southeast frontier. It has been proposed to establish a quarantine on the Transcaucasian railroad which passes by way of Tiflis, from Batoun to Bakou, but this proposition has encountered serious objections, and it is now agreed in Russia that such precautions are ineffectual against the progress of the disease. The hygienic measures proposed by the sanitary conference of Rome are now exclusively adopted.

With regard to the origin of the epidemic no information has been received. The first manifestations of the disease passed unnoticed, and only when it had become grave and diffused was there any mention of it in sanitary reports.

In Spain a cholera epidemic developed. The first cases appeared in the province of Valencia about the 13th of last May. They were concealed, hence the disease attained a rapid diffusion. Early in June a number of cases appeared in the little city of Rugat and in the surrounding district. It was no longer possible to conceal the existence of the disease, and although the superior board of health of Spain pronounced that it was probably but not certainly Asiatic cholera, prompt measures were taken for its suppression.

In France energetic means were employed to prevent an invasion of cholera. Doctors Charrin and Netter were dispatched to organize disinfecting stations at the junction of the French and Spanish lines of railway. A strict quarantine was also prescribed for vessels coming from ports on the coast of Spain.

In Italy the minister of the interior, on receipt of the official announcement of cholera at Valencia, issued the following instructions:

“Every vessel arriving from Spanish ports of the Mediterranean shall be subjected to strict medical inspection.

“Such vessels shall be prohibited from disembarking any cotton or woollen articles, whether of personal or domestic use, until such articles shall be thoroughly cleansed. The authorities of the port, finding such articles on board, shall prevent their disembarkation until they shall have been thoroughly disinfected, by the steam disinfecting apparatus, if the vessel be provided with it; if not, by immersing the said articles in boiling water for ten minutes, or for half an hour in a solution of corrosive sublimate in the proportion of two parts to a thousand. The inspecting physicians shall decide in each case as to whether the effects of passengers and crew shall be disinfected.

“Vessels on which cholera cases have been verified during the voyage or on which suspicious cases shall be found on arrival shall be sent to the sanitary station at Asinara for such further treatment as shall be determined from time to time by the minister.”

At Rugat a great diminution of cases was observed some days after the degree of maximum intensity was reached, while the disease diffused itself in the vicinity, attacking localities which were the most seriously affected by the epidemic of 1885.

The delegates invited by the Spanish Government to point out the means of importation of the disease have been unable to reach a satisfactory conclusion. According to some it was imported by soldiers arriving from the Philippine Islands; according to others by a traveler arriving from Gibraltar.

On July 23 the epidemic was reported as decreasing at all the localities attacked. On the succeeding days there was a slight augmentation at Rugat, and the disease has now reached the railway line to Madrid. On July 27 news was received of two cases at Mataro, north of Barcelona. One death has occurred at Regoa, in Portugal.

Cholera in the East in 1890.

[Translated for this Bureau from *Le Journal d'Hygiene*, Paris, July 31, 1890.]

The statements contained in the following communication, addressed by Doctor Gabuzzi to the French Society of Hygiene, are fully confirmed by the published reports of the cholera epidemic in the East:

“CONSTANTINOPLE, July 17, 1890.

“The sporadic cases of cholera reported to the sanitary administration from Mardin, Djeriré, and the villages of Vahsa and Telkine, under date of July 2, and which were declared by the military physicians, after careful investigation, to be cases of ‘pernicious fever and typhus, caused by the ingestion of poisonous plants,’ were, on the contrary, the first appearance of a new choleraic epidemic, or probably a fresh outbreak of the epidemic suddenly suppressed at Mossoul last year by the cold of winter and the difficulty of communication.

“Europe is now more seriously menaced than ever. The epidemic is in the aggressive stage. The sanitary administration reports from official information as follows:

Provinces.	Dates.	Cases.	Deaths.
Mossoul.....	From July 6 to 12.....	152	84
Diarbekir.....	From July 6 to 12.....	120	110
Bitlis.....	July 5.....	10	3

“The progress of the epidemic to the north is indubitable. Its route will probably be by Ezeroum and Trelirzonde to the littoral of the Black Sea.

“Confidence in the superannuated system of sanitary cordons is in no respect shaken in spite of the unfortunate results obtained from them last year, and the anarchy and dishonesty provoked by them. These ineffective prophylactic expedients absorb large appropriations that might be better employed in the organization of a system of public aid in the infected localities.

“The Turkish lazaretto of Camaran in the Red Sea has received 41 choleraic patients from an English vessel carrying pilgrims to Mecca.”

Cholera at the Red Sea Quarantine Station at Camaran.

[Translated for this Bureau from *La Revue Médico-Pharmaceutique*, Constantinople, July 31, 1890.]

The cases of cholera which occurred at the lazaretto in the island of Camaran in the Red Sea have excited more apprehension in Europe than they merited. The facts are as follows :

On the 2d of July the English steamer *Deccan* arrived at Camaran from Bombay with 1,222 pilgrims on board. During the voyage thirty-four passengers died, seven of the deaths being from cholera, according to the declaration of the captain and physician. A number of cholera patients were taken on shore at the Camaran lazaretto. Of these two died on the day of disembarkation, and twelve more between July 3 and July 14. The patients were isolated and subjected to all necessary sanitary precautions. The health of the other pilgrims, 17,432 in number, remained intact up to July 17, when the period of detention at the lazaretto was completed.

Causal theories concerning choleraic outbreaks.

[Abstract from the report of the French Society of Hygiene. Translated for this Bureau from *Le Journal d'Hygiene*, July 24, 1890.]

The French Society of Hygiene has received from Doctor Tholozan, honorary member of the society, some precise information with regard to the outbreak of cholera in Mesopotamia. He asserts that cholera lingered in this region during the winter in a light, sporadic form, to break out with violence with the first heat of summer, and that in view of this fact "the theory that choleraic epidemics can be controlled and subdued by restrictive measures must be abandoned."

The unexpected appearance of cholera in certain small localities in the province of Valencia, Spain, is also fatal to the "tradition which makes all cholera epidemics originate on the banks of the Ganges." The partisans of a theory which reigned supreme from 1867 to 1887, and which was affirmed by every international congress of hygiene and by the academies of sciences and of medicine, will find it difficult to deny that the cholera which appeared in the village of Puebla de Rugat was an epidemic of local origin, a revival of the great choleraic epidemic which in 1884 and 1885 prevailed in Spain and especially in the province of Valencia.

In 1875 Doctor Tholozan showed by authentic reports "that many epidemics of cholera and plague originate on the spot from germs previously deposited in the soil."

At the conference of Rome and at the Congress of Hygiene of Vienna, the French delegates urged the establishment between the several states of the two hemispheres of an international treaty, directed against pestilential diseases (cholera, yellow fever, and plague). Among the fundamental terms of this treaty an "international sanitary inspection of vessels entering the Suez Canal" was proposed.

In his last study of cholera, Pettekofer demonstrates from the history of choleraic epidemics that general prophylactic measures, based on the theory of contagion, measures costly and impossible of

application, have proved their complete inutility in the past, and that they will be equally inefficacious in the future.

On the other hand, Doctor Mahé, sanitary physician of France at Constantinople, in a paper on "the progress of Asiatic cholera from the East Indies westward during the past decade," asserts "that all choleraic epidemics which have descended upon Europe have come, some by direct irradiation of the epidemic from Hindoostan, some by importation into the Hedjaz and Egypt."

Sir Joseph Fayre, in an article presented to the Medical Society of London, entitled "Natural and epidemiological history of cholera," arrives at the following conclusions:

"The theories of contagion and propagation by human means do not explain the spread of choleraic epidemics, since their frequency and direction and the rapidity of their propagation bear no relation to the development of the means of communication.

"Epidemics, although a constant condition of the life of man, are not unavoidable and are subject to common sense and the laws of hygiene."

Doctor Kelsch, of the *Val du Grace*, in his remarkable work, "*Considerations on the etiology of cholera*," after an impartial review of the rival theories which have disputed the ground during the past half century, the theory of importation, supported by Fauvel, Rochard, and Proust, and the theory of evolution, supported by Jules Guérin, Tholozan, and Didiot, sums up the discussion with this practical conclusion:

"The prophylaxis of cholera belongs primarily to local and individual hygiene."

In 1884 Dr. Jules Rochard, in a report on cholera in Toulon, read before the Academy of Medicine, asserted that "cholera can reach us only by way of the Red Sea. The Suez Canal is the only dyke which protects Europe against this scourge. Whenever it shall be broken a destructive flood will sweep over Europe."

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
London	Aug. 2	5,758,500	2,074					11	20	40	113	
London	Aug. 14	5,758,500	1,991					11	19	27	107	
Paris	Aug. 2	2,260,945	848					9	7	17	28	10
Paris	Aug. 9	2,260,945	873			2		10	2	24	25	7
Liverpool	Aug. 2	613,463	247					3	14	1		
Liverpool	Aug. 9	613,643	254				3	11				
Glasgow	Aug. 9	545,678	197					3	3	1		
Brussels	Aug. 2	469,459	184					3				
Warsaw	July 26	455,852	208			8			2	9		
Warsaw	Aug. 2	455,852	226			10			5	12		
Hamburg	July 26	455,000	226					1		10		
Rio de Janeiro	July 26	450,000	270		6	5	7	10				
Calcutta	June 23	433,219	161	15								
Calcutta	July 5	433,219	172	10		3						
Rome	June 23	418,217	181					2	2	5		
Amsterdam	Aug. 2	406,402	120					1		6		
Amsterdam	Aug. 9	406,402	116					2	2	3		
Lyons	Aug. 2	401,930	161					2				

MORTALITY TABLE—FOREIGN CITIES—CONTINUED.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Small-pox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
Cairo	July 17	374,838	282				10					2
Cologne	Aug. 2	284,574	135			1					4	4
Odessa	July 26	276,300	211		3		1	2				
Edinburgh	Aug. 2	271,135	80					3				
Edinburgh	Aug. 9	271,135	91				1	1				
Palermo	Aug. 9	250,000	93			1		1				
Antwerp	Aug. 2	232,418	98					1				
Antwerp	Aug. 15	232,418	80				1	2				
Bristol	Aug. 2	232,248	63									
Bristol	Aug. 9	232,248	66					1				
Belfast	Aug. 2	232,222	117				2	1	2			
Belfast	Aug. 9	232,222	99				5	1				
Alexandria	July 17	231,396	147				10					
Havana	Aug. 9	200,000	178	17			2					
Frankfort-on-the-Main	Aug. 2	170,733	55						5			
Frankfort-on-the-Main	Aug. 9	170,733	44						3			
Trieste	Aug. 2	158,054	88				2		3			
Ghent	Aug. 2	152,395	71				1		1			2
Rotterdam	Aug. 9	148,102	62									
Christiania	Aug. 2	143,300	52						4			
Funchal	Aug. 2	133,250	19		2							
Nuremberg	July 12	129,400	46				2	1	1			
Stuttgart	Aug. 9	125,510	37						1			
Bremen	Aug. 2	124,000	29						1			
Cardiff	Aug. 11	117,012	37									
Havre	Aug. 2	112,074	61				3			2		
Havre	Aug. 9	112,074	86				5			1	1	
Aix-La-Chapelle	Aug. 10	109,445	60									
Catania	July 28	109,000	71					5		1	1	
Catania	Aug. 4	109,000	68					2		3		
Catania	Aug. 12	109,000	53				2	4	1	2	1	
Crefeld	Aug. 2	108,000	39									
Crefeld	Aug. 9	108,000	44									
Leghorn	Aug. 3	103,723	44				1					
Leghorn	Aug. 10	103,723	34									
Gothenburg	Aug. 2	102,782	27					2				
Zurich	Aug. 2	91,323	11			3		2		2	1	
Messina	Aug. 2	79,971	43						2			
Leith	Aug. 2	78,538	26									
Leith	Aug. 9	78,538	17									
Mayence	Aug. 2	65,802	31							1		
Jerez de la Frontera	Aug. 12	61,708	26									
Cape Town	July 22	56,000	11									1
Merida	July 22	47,000	37		2							
Merida	July 31	47,000	67		10							
Trapani	Aug. 9	43,095	10									
Cienfuegos	Aug. 10	40,665	27		2		1					
Marsala	Aug. 9	40,131	12				1					
Amherstburg	Aug. 19	30,000	9									
Schiedam	Aug. 10	25,600	6									
Cardenas	Aug. 10	25,000	16									
Curacoa	Aug. 2	25,000	6									
Vera Cruz	Aug. 7	23,800	29		1							
Vera Cruz	Aug. 14	23,800	25		1							
Gibraltar	Aug. 3	23,681	9			1				2		
Girgenti	Aug. 9	23,547	14									
Victoria, B. C.	Aug. 16	18,500	6									
Kingston, Can	Aug. 15	18,284	22									
Cartagena	Aug. 2	16,000	9									
Matamoras	Aug. 9	16,000	5									
Flushing	Aug. 9	13,200	4									
Denia	Aug. 3	12,000	15	5								
Denia	Aug. 10	12,000	14	9								
Guelph	Aug. 16	10,173	1									
Tampico	Aug. 4	9,000	7									
Tampico	Aug. 11	9,000	8									
La Guayra	Aug. 2	7,428	4									
Sarnia	Aug. 16	6,200	1									

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